

Summary

Title: FINE PULVERIZATION OF DIFFICULTLY MELTABLE POLYMER
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Assignee: AMUKO ENTERP KK
Inventor(s): NAKA KIYOMI ; KIKUCHI NORIHIRO
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Abstract:

PURPOSE: To effectively finely pulverize a highly tough difficultly meltable polymer at a higher temperature than the ordinary temperature by a dry mechanical method utilizing a shear force.

CONSTITUTION: A difficultly meltable polymer is added to an easily meltable polymer. If necessary, the obtained mixture is heated to melt only the easily meltable polymer and subsequently cooled to obtain the composite product wherein both the polymers are tightly adhered to each other. The mixture or the composite product is subjected to a shear-pulverization treatment using a biaxial kneading extruder, a stone mill type kneading extruder, etc., in a solid phase state. The finely pulverization method facilitates the shear pulverization which is difficult for the difficultly meltable polymer alone, and enables to prevent powder coagulation which is easily concurred. The finely pulverization method enables to reduce the consumption of energy and profitably obtain the fine powder in comparison with the conventional freezing impact-pulverizing method.

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